

(Pre) Construction Support



Pre-Bid Core Inspection



GS Construction Support



Notice of Potential Claim (NOPC) Assistance

GS Construction Support



Verify Alleged Changed Site Condition Claims

Construction Support



Foundation Testing
Geotechnical Instrumentation

Foundation Testing for CIDH Piles

Gamma - Gamma Logging

- ❖ Caltrans Primary Non-destructive evaluation (NDE) for “Wet” Piles
- ❖ used to evaluate the concrete outside of the reinforcing cage
- ❖ radius of detection of 4-inches in concrete measured from center of the inspection tube



Foundation Testing for CIDH Piles

Gamma - Gamma Logging



Foundation Testing for CIDH Piles

Inspection Tubes



Foundation Testing for CIDH Piles

Gamma - Gamma Logging



Foundation Testing for CIDH Piles

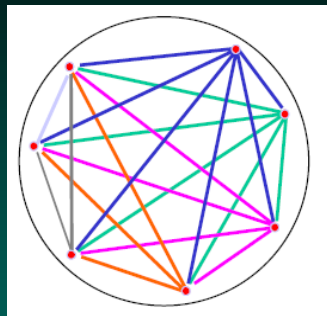
Cross-hole Sonic Logging (CSL)

- ❖ used to examine and evaluate concrete integrity between inspection tubes
- ❖ sonic wave arrival times are representative of the presence of anomalies



Foundation Testing for CIDH Piles

Cross-Hole Sonic Logging (CSL)

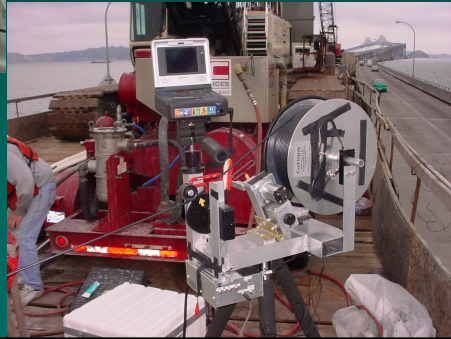


Material	Velocity (ft / sec)
Good Concrete	12,000
Water	4,800
Air	1,100



Foundation Testing for CIDH Piles

Down Hole Camera



Foundation Testing for CIDH Piles

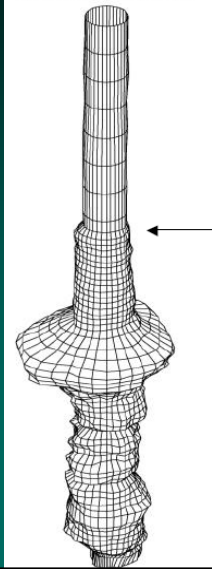
Sonic Caliper Logging (SCL)

- ❖ determines the diameter of drilled shafts under slurry prior to the placement of concrete



Foundation Testing for CIDH Piles

Sonic Caliper Logging (SCL)



Foundation Testing for Drilled Shaft Piles

Drilled Shaft Inspection Device (SID)

❖ Allows for a visual inspection of the bottom of a drilled shaft



Pile Load Testing (PLT)



- ❖ Required for all Driven Piles > 1 Meter in Diameter
- ❖ Confirms Design: Less Conservatism
- ❖ Verifies New Pile Types and Installation Methods
- ❖ Resolves Conflicts and Reduces Claims
- ❖ Shorten Piles

Pile Load Tests should be used where benefits outweigh added cost and time

8,000,000 Pound Static Pile Load Test (PLT) System

- ❖ Largest Static System in the World



Pile Load Test (PLT)



Additional Pile Load Test Systems



❖ 4,000,000-pound (18-MN) PLT System

Additional Pile Load Test Systems



❖ 2,000,000-pound (9-MN) PLT System

Additional Pile Load Test Systems



❖ 1,000,000-pound (4.5-MN) PLT System

Pile Dynamic Monitoring

- ❖ PDA in the field
 - Performed During Pile Driving
 - Records Driving Event



What To Avoid



Geotechnical Testing

❖ Slope Inclinometer Testing / Landslide Monitoring Services



Geotechnical Instrumentation

❖ Settlement Platforms

